

Terre Haute 2400 South Erie Canal Terre Haute, IN 47802 www.hydrite.com

February 10, 2016

Melissa Cline IDEM Office of Air Quality/Permits Branch 100 North Senate Avenue Indianapolis, IN 46204 RECEIVED
State of Indiana SV
FEB 1.5 2016 VB
Dept of Em trommental Management
Office of Air Quality

Dear Melissa,

Enclosed please find two copies of documents covering the renewal of the MSOP for Hydrite Chemical in Terre Haute. Our existing permit number is 167-29848-00069 and expires on 7/12/2016.

This permit was revised late last year due to the addition of a new source (boiler) within the plant. All other items remain the same as referenced in that revision with the exception of a minor process change outlined below.

The minor revision is in our burner #2 area, which was originally permitted in 2013 at the time of its construction. We have revised the strength of the caustic stream used for neutralization in the cooling towers, Strong, Weak, Wash Tower and the Scrubber tower from 25 percent to 10 percent. This is described in the most recent permit description in section A.2 (f). A marked up copy of this section is included.

The person responsible for operation of our facility has also changed as noted in the GSD-01 document. (enclosed)

Please advise if anything else is needed by your office regarding renewal of the permit.

Sincerely,

Loren Meisinger

SQRA Manager Hydrite Chemical Company

AIR PERMIT APPLICATION COVER SHEET

State Form 50639 (R4 / 1-10)
INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

IDEM - Office of Air Quality - Permits Branch 100 N. Senate Avenue, MC 61-53 Room 1003 Indianapolis, IN 46204-2251 Telephone: (317) 233-0178 or Toll Free: 1-800-451-6027 x30178 (within Indiana) Facsimile Number: (317) 232-6749

www.IN.gov/idem

NOTES:

- The purpose of this cover sheet is to obtain the core information needed to process the air permit application. This cover sheet is required for <u>all</u> air permit applications submitted to IDEM, OAQ. Place this cover sheet on top of all subsequent forms and attachments that encompass your air permit application packet.
- Submit the completed air permit application packet, including all forms and attachments, to IDEM Air Permits Administration using the address in the upper right hand corner of this page.
- IDEM will send a bill to collect the filing fee and any other applicable fees.
- Detailed instructions for this form are available on the Air Permit Application Forms website.

	Exemption 4-Confidentia		 ***************************************
1 Tax ID Number:	Exemption 4-Confidentia	1	
I. Tax ID Number.	Exemption 4-Confidentia		

PERMIT N	FOR OFFICE USE ONLY IUMBER:	
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DATE AP	PLICATION WAS RECEIVED:	_
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Yhendi iacan www.	F- < 1 5 2016 VB	
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			PART A: Purp		•		
	rt A identifies the ource" refers to th	•			•		n, the term
2.	Source / Company	Name: Hydri	te Chemical Comp	any		3. Plant ID:	167 – 0069
4.	Billing Address:	2400	South Erie Canal I	Road			
	City: Terre Haut	te		State:	IN	ZIP Code: 478	302 –
5.	Permit Level:	☐ Exemption	Registration	SSOA	⊠ MSOP	FESOP TV	OP PBR
6.	Application Summ choices selected be		nat apply. Multiple	permit num	bers may be as	signed as needed	based on the
	☐ Initial Permit	⊠ Ren	ewal of Operating I	Permit	□ A	sphalt General Pe	rmit
	☐ Review Request	∏ Rev	ocation of Operatin	ıg Permit	□А	Alternate Emission	Factor Request
	☐ Interim Approval	Relo	cation of Portable	Source	□ A	cid Deposition (Ph	ase II)
	☐ Site Closure	☐ Emi	ssion Reduction Cr	edit Registr	у		
	☐ Transition (between	een permit levels	s) From:			То:	
	Administrative A	mendment:	☐ Company Name	Change		☐ Change of Re	esponsible Official
			☐ Correction to No	n-Technical l	nformation	☐ Notice Only (Change
			Other (specify):				
	☑ Modification:	☐ New Emission	unit or Control Devi	ice 🔲 Me	odified Emission l	Unit or Control Device	e
		☐ New Applicab	le Permit Requiremei	nt 🔲 Cl	nange to Applicab	ility of a Permit Requ	iirement
		\square Prevention of	Significant Deteriorat	tion 🔲 Er	nission Offset	☐ MACT Preco	nstruction Review
		☐ Minor Source	Modification	Significant	Source Modificati	on	
		☐ Minor Permit I	Modification] Significant	Permit Modificatio	on	
		Other (specify)	: Change to permit	process des	scription		
7.	Is this an application	n for an initial co	nstruction and/or o	perating per	rmit for a "Gree	nfield" Source?	☐ Yes ⊠ No
8.	Is this an application	n for construction	n of a new emissio	ns unit at an	Existing Sour	ce?	☐ Yes ⊠ No

		PART B: Pre-Application Meeting
Part B specifie:	s whether a	a meeting was held or is being requested to discuss the permit application.
9. Was a meetin project?	g held betwe	en the company and IDEM prior to submitting this application to discuss the details of the
⊠ No	☐ Yes:	Date:
10. Would you like project?	e to schedule	e a meeting with IDEM management and your permit writer to discuss the details of this
⊠ No	Yes:	Proposed Date for Meeting:
		PART C: Confidential Business Information
		oplications that require special care to ensure that confidential business ate from the public file.
set out in the India OAQ information in	na Administr egarding sub	be made at the time the information is submitted to IDEM, and must follow the requirements rative Code (IAC). To ensure that your information remains confidential, refer to the IDEM, bmittal of confidential business information. For more information on confidentiality for mation, please review IDEM's Nonrule Policy Document Air-031-NPD regarding Emission
11.Is any of the Business I		on contained within this application being claimed as Confidential n?
⊠ No □	Yes	
	PART	D: Certification Of Truth, Accuracy, and Completeness
is truthful, accບ	ficial certifi rate, and c	cation that the information contained within the air permit application packet complete. Any air permit application packet that we receive without a signed ed incomplete and may result in denial of the permit.
	2-7-1(34) m	t (TVOP) or a Source Specific Operating Agreement (SSOA), a "responsible official" as nust certify the air permit application. For all other applicants, this person is an "authorized AC 2-1.1-1(1).
		ty of law that, based on information and belief formed after reasonable inquiry, the mation contained in this application are true, accurate, and complete.
Adam Russell Name (typed)		Operations Manager Title
Signature (Lette	2 - 10 - 2016 Date

2013, with a maximum product capacity of 103 tons per day of SO₂ and consisting of the following:

- (1) One (1) molten sulfur process production plant, permitted in 2013;
- (2) One (1) sulfur burner with a maximum product capacity of 103 tons per day;
- (3) One (1) primary cooling tower, using a 25% caustic solution pH controlled scrubber, permitted in 2013 and exhausting to stack S-520.
- (4) One (1) secondary cooling tower, using a 25% caustic solution pH controlled scrubber, permitted in 2013 and exhausting to stack S-520.
- (5) One (1) strong ammonium bisulfite tower, using a 25% caustic solution pH controlled scrubber, permitted in 2013 and exhausting to stack S-520.
- (6) One (1) weak ammonium bisulfite tower, using a 25% caustic solution pH controlled scrubber, permitted in 2013 and exhausting to stack S-520.
- (7) One (1) wash tower, using a 25% caustic solution pH controlled scrubber, and exhausting to stack S-520.
- (8) One (1) scrubbing tower (for the sulfur burner used for the bisulfite production and ammonium thiosulfate production process), identified as WS-520, permitted in 2013, using a 25% caustic solution pH controlled scrubber, with maximum production capacity of 103 tons per day of SO₂ and exhausting to stack S-520.
- (g) One (1) continuous bisulfite production and ammonium thiosulfate production process, permitted in 2013, consisting of the following:
 - (1) One (1) ammonium thiosulfate (ATS) and ammonium bisulfite (ABS) mix tank, with a maximum capacity of 142,000 lbs/hr, permitted in 2013.
 - Three (3) ammonium thiosulfate (ATS) reactors, with a maximum capacity of 40,000 lbs/hr, permitted in 2013.
 - (3) Two (2) ammonium thiosulfate (ATS) storage tanks, with a maximum storage capacity of 40,000 gallons, each, permitted in 2013.
 - (4) One (1) Potassium Hydroxide (KOH) storage tank, identified as tank T-603; constructed in 2015, with a maximum storage capacity of 40,000 gallons.
 - One (1) Ammonium Bisulfite storage tank, identified as tank T-604; constructed in 2015, with a maximum storage capacity of 40,000 gallons.
- (h) One (1) batch bisulfite production process, constructed in 1993, consisting of the following:
 - (1) One (1) magnesium bisulfite reactor, identified as PO1001, with a maximum capacity of 62,000 lbs/hr, using a packed bed scrubber with a 10% caustic solution pH controlled, and exhausting to stack S01.
 - One (1) sodium bisulfite reactor, identified as PO1002, with a maximum capacity of 62,000 lbs/hr, using a packed bed scrubber with a 10% caustic solution pH controlled, and exhausting to stack S01.



OAQ GENERAL SOURCE DATA APPLICATION

GSD-01: Basic Source Level Information

State Form 50640 (R5 / 1-10)
INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

IDEM - Office of Air Quality - Permits Branch 100 N. Senate Avenue, MC 61-53 Room 1003 Indianapolis, IN 46204-2251 Telephone: (317) 233-0178 or

Toll Free: 1-800-451-6027 x30178 (within Indiana) Facsimile Number: (317) 232-6749 www.IN.gov/idem

NOTES:

- The purpose of GSD-01 is to provide essential information about the entire source of air pollutant emissions. GSD-01 is a required
- Detailed instructions for this form are available on the Air Permit Application Forms website.
- All information submitted to IDEM will be made available to the public unless it is submitted under a claim of confidentiality. Claims of confidentiality must be made at the time the information is submitted to IDEM, and must follow the requirements set out in 326 IAC 17.1-4-1. Failure to follow these requirements exactly will result in your information becoming a public record, available for public inspection.

	y Location Information			
1. Source / Company Name: Hydrite Chemical Company	2. Plant ID: 167 — 00069			
3. Location Address: 2400 South Erie Canal Road				
City: Terre Haute	State : IN ZIP Code : 47802 – 3106			
4. County Name: Vigo 5	5. Township Name: Harrison			
6. Geographic Coordinates:				
Latitude: 39.4406	Longitude: -87.3963			
7. Universal Transferal Mercadum Coordinates (if known):				
Zone: 16 Horizontal: 46589	97.48 Vertical : 4365747.22			
8. Adjacent States: Is the source located within 50 miles of a	ın adjacent state?			
☐ No ☑ Yes – <i>Indicate Adjacent State(s):</i>	☐ Michigan (MI) ☐ Ohio (OH) ☐ Kentucky (KY)			
9. Attainment Area Designation: Is the source located within a	non-attainment area for any of the criteria air pollutants?			
	Pb NO _x O ₃ PM PM ₁₀ PM _{2.5} SO ₂			
10. Portable / Stationary: Is this a portable or stationary source	ce? ☐ Portable ☐ Stationary			
PART B: Source Summary				
11. Company Internet Address (optional): www.hydrite.co				
	om :			
11. Company Internet Address (optional): www.hydrite.co 12. Company Name History: Has this source operated under a	om :			
11. Company Internet Address (optional): www.hydrite.co 12. Company Name History: Has this source operated under a	any other name(s)? ompany names in Part I, Company Name History.			
 11. Company Internet Address (optional): www.hydrite.co 12. Company Name History: Has this source operated under a	any other name(s)? ompany names in Part I, Company Name History.			
 11. Company Internet Address (optional): www.hydrite.co 12. Company Name History: Has this source operated under a	any other name(s)? company names in Part I, Company Name History. e portable source be changing in the near future? cart J, Portable Source Location History, and cart K, Request to Change Location of Portable Source.			
11. Company Internet Address (optional): www.hydrite.company Name History: Has this source operated under a	any other name(s)? company names in Part I, Company Name History. e portable source be changing in the near future? cart J, Portable Source Location History, and cart K, Request to Change Location of Portable Source.			
11. Company Internet Address (optional): www.hydrite.company Name History: Has this source operated under a	any other name(s)? company names in Part I, Company Name History. e portable source be changing in the near future? art J, Portable Source Location History, and art K, Request to Change Location of Portable Source. or permits been issued to this source? anding emissions units in Part M, Existing Approvals.			
11. Company Internet Address (optional): www.hydrite.co 12. Company Name History: Has this source operated under a ☑ No ☐ Yes – Provide information regarding past co 13. Portable Source Location History: Will the location of the ☐ Not Applicable ☑ No ☐ Yes – Complete Pale Pale 14. Existing Approvals: Have any exemptions, registrations, or ☐ No ☑ Yes – List these permits and their correspondence.	any other name(s)? company names in Part I, Company Name History. e portable source be changing in the near future? art J, Portable Source Location History, and art K, Request to Change Location of Portable Source. or permits been issued to this source? Inding emissions units in Part M, Existing Approvals. by unpermitted emissions units?			
11. Company Internet Address (optional): www.hydrite.com 12. Company Name History: Has this source operated under a □ No □ Yes − Provide information regarding past company in the location of the □ Not Applicable □ No □ Yes − Complete Para 14. Existing Approvals: Have any exemptions, registrations, on □ No □ Yes − List these permits and their correspond 15. Unpermitted Emissions Units: Does this source have any	any other name(s)? company names in Part I, Company Name History. e portable source be changing in the near future? art J, Portable Source Location History, and art K, Request to Change Location of Portable Source. or permits been issued to this source? anding emissions units in Part M, Existing Approvals. by unpermitted emissions units? and Part N, Unpermitted Emissions Units.			
11. Company Internet Address (optional): www.hydrite.co 12. Company Name History: Has this source operated under a ☑ No ☐ Yes – Provide information regarding past co 13. Portable Source Location History: Will the location of the ☐ Not Applicable ☑ No ☐ Yes – Complete Para Para 14. Existing Approvals: Have any exemptions, registrations, or ☐ No ☑ Yes – List these permits and their correspondations. Units: Does this source have any ☑ No ☐ Yes – List all unpermitted emissions units in ☐ No ☐ Yes – List all unpermitted emissions units in ☐ No ☐ Yes – List all unpermitted emissions units in ☐ No ☐ Yes – List all unpermitted emissions units in ☐ No ☐ Yes – List all unpermitted emissions units in ☐ No ☐ Yes – List all unpermitted emissions units in ☐ No ☐ Yes – List all unpermitted emissions units in ☐ No ☐ Yes – List all unpermitted emissions units in ☐ No ☐ Yes – List all unpermitted emissions units in ☐ No ☐ Yes – List all unpermitted emissions units in ☐ No ☐ Yes — List all unpermitted emissions units in ☐ No ☐ Yes — List all unpermitted emissions units in ☐ No ☐ Yes — List all unpermitted emissions units in ☐ No ☐ Yes — List all unpermitted emissions units in ☐ No ☐ Yes — List all unpermitted emissions units in ☐ No ☐ Yes — List all unpermitted emissions units in ☐ No ☐ Yes — List all unpermitted emissions units in ☐ No ☐ Yes — List all unpermitted emissions units in ☐ No ☐ Yes — List all unpermitted emissions units in ☐ No ☐ Yes — Yes	any other name(s)? company names in Part I, Company Name History. e portable source be changing in the near future? art J, Portable Source Location History, and art K, Request to Change Location of Portable Source. or permits been issued to this source? Inding emissions units in Part M, Existing Approvals. by unpermitted emissions units? In Part N, Unpermitted Emissions Units. It or modify any emissions units?			
 11. Company Internet Address (optional): www.hydrite.co 12. Company Name History: Has this source operated under a	any other name(s)? company names in Part I, Company Name History. e portable source be changing in the near future? art J, Portable Source Location History, and art K, Request to Change Location of Portable Source. or permits been issued to this source? Inding emissions units in Part M, Existing Approvals. y unpermitted emissions units? In Part N, Unpermitted Emissions Units. It or modify any emissions units? Part O, New or Modified Emissions Units.			

PART C: Source C	ontact Information				
IDEM will send the original, signed permit decise. This person MUST be an employee of the permitte		dentified in this section.			
18. Name of Source Contact Person: Jordan Abrell					
19. Title (optional): SQRA Manager					
20. Mailing Address: 2400 S Erie Canal Rd					
City: Terre Haute	State: IL	ZIP Code : 48702 – 3106			
21. Electronic Mail Address (optional): jordan.abrell@hydrit	te.com				
22. Telephone Number : (812) 232 - 5411	22 . Telephone Number : (812) 232 – 5411 23 . Facsimile Number (optional): (812) 232 – 1148				
PART D: Authorized Individual/I	Posponsible Official Inf	ormation			
IDEM will send a copy of the permit decision to the	and the second of the second o	and the state of t			
Individual or Responsible Official is different from t	•				
24. Name of Authorized Individual or Responsible Officia	al: Adam Russell				
25. Title: Operations Manager					
26. Mailing Address: 2400 South Erie Canal Road					
City: Terre Haute	State: IN	ZIP Code : 47802 – 3106			
27. Telephone Number : (812) 232 - 5411	28. Facsimile Number	· (optional): (812) 232 - 1148			
29. Request to Change the Authorized Individual or Responsive the person designated as the Authorized Individual IDEM, OAQ? The permit may list the title of the Authorized Individual IDEM, OAQ?	ial or Responsible Officia	l in the official documents issued by			
☐ No ☐ Yes – Change Responsible Official to:	Adam Russell				
		en en grande de la company de la company La company de la company d			
	er Information	atanah sasah dah sasara sasah dah gara <u>a ayaa ayaa sasa daha a</u>			
30. Company Name of Owner: Hydrite Chemical Co 31. Name of Owner Contact Person: Joe Weishar					
32. Mailing Address: 300 North Patrick Boulevard					
City: Brookfield	State: WI	ZIP Code : 53045 —			
33. Telephone Number : (262) 792 – 1450		(optional): (262) 792 - 8721			
34. Operator: Does the "Owner" company also operate the s		The second of the second of the second of			
	ME AS OWNER" on line 35 ar				
Zarto . recede to are absent E					
PART F: Opera	tor Information				
35. Company Name of Operator: Hydrite Chemical Co	0				
36. Name of Operator Contact Person: Adam Russ	ell				
37. Mailing Address: 2400 South Erie Canal Road					
City: Terre Haute	State: IN	ZIP Code : 47802 – 3106			
38. Telephone Number: (812) 232 - 5411	39. Facsimile Number	r (optional):(812)232 - 1148			

Air Permit Application
FORM GSD-01
Page 3 of 6

PART G: Age	nt Information			
40. Company Name of Agent: Not Applicable				
41. Type of Agent: Environmental Consultant Attorney Other (specify):				
42. Name of Agent Contact Person:				
43. Mailing Address:				
City:	State:	ZIP Code: -		
44. Electronic Mail Address (optional):				
45. Telephone Number: () –	46. Facsimile Number	(optional): () –		
47. Request for Follow-up : Does the "Agent" wish to receive a copy of the preliminary findings				
during the public fiction ported (if approache, and a copy	Of the final determination.			
PART H: Local Li	brary Information	And the second section in the second section is a second section of the second section in the second section is		
48. Date application packet was filed with the local librar	у:			
49. Name of Library: Vigo County Public Library				
50. Name of Librarian (optional):				
51. Mailing Address: 1 Library Square	T			
City: Terre Haute	State: IN	ZIP Code : 47807 – 3609		
52. Internet Address (optional):				
53. Electronic Mail Address (optional):	1			
54. Telephone Number : (812) 232 - 1113	55. Facsimile Number	(optional): () –		
PART I: Company Nan	ne History (if applicable)			
Complete this section only if the source has previously opera	and the second of the second of the second of	nat is different from the name listed		
above in Section A.				
56. Legal Name of Company		57. Dates of Use		
	·····	to		
		to		
		to		
		to		
	····	to		
		to		
58. Company Name Change Request: Is the source official on all official documents issued by IDEM, OAQ?	lly requesting to change th	ne legal name that will be printed		

County Name:
63. New Location:
Address:

County Name:

City:

A second	PART J: Portable Source Lo	ocation History (if a	applicable)		
Complete this section only The current location of the	<i>y</i> if the source is portable and the loss source should be listed in Section	cation has changed A.	I since the pr	evious permi	t was issued.
59. Plant ID	60. Location of the Portable Sc	ource		61. Dates at	this Location
_					to
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auto districts and it would be the multi-consist and public and dis-	ART K: Request to Change Locat equest a change of location for a p	and the Street, have for the construction for the construction	urce (if applic	caple)	
62. Current Location:					
Address:					
City:		State:	ZIP Code:	_	

State:

ZIP Code:

PART L: Source Process Description Complete this section to summarize the main processes at the source.					
64. Process Description		66. SIC Code	67. NAICS Code		
Batch Production - existing	MBS, SBS, ABS				
Continuous Production - existing	Ammonium Thiosulfate	2819	325180		
Boilers	Steam				
Continuous Production- existing	MBS, SBS, ABS		}		

8. Permit ID	69. Emíssions Unit IDs	70. Expiration Date
167330890	O. Emissions Omerss	70. Expiration Date
0069	WS-510	7/12/2016
167330890		
0069	WS-520	7/12/2016
167330890		necono ma
0069	S01	7/12/2016

Complete this se	PART N: Unpermitted Emissions Un ction only if the source has emission units that are not I	and the second s	it issued by IDEM	, OAQ.
		73. Actual		
71. Emissions Unit ID	72. Type of Emissions Unit	Began Construction	Completed Construction	Began Operation

74. Emissions Unit ID	>	Δ	77. Type of Emissions Unit	78. Estimated Dates		
	75. NEW 76. MOD	4 . 4 5 5 5		Begin Construction	Complete Construction	Begin Operation
					·	

Indiana Department of Environmental Management Office of Air Quality State Form 50640 (R5 / 1-10) Air Permit Application FORM GSD-01 Page 6 of 6

Sender: You must seal flap before shipping.

SHIP DATE: 11FEB16 ACTWGT: 1.00 LB CAD: 9378076/INET3730 (812) 232-5411 Terre Haute IN 47802 US BILL SENDER TO Melissa Cline IDEM Office of Air QualityPermits (S) 540J1/37D7/727F 100 North Senate Avenue MC 61-53 Room 1003 INDIANAPOLIS IN 46204 (317) 233-0178 TRK# 7756 2950 6932 Office of Air Quality 9622 0019 0 (000 008 8191) 1 00 7756 2950 6932

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